

REMARKS

Claims 1-3 and new claims 4-7 are pending in this application.

The support for new claims 4-7 is as follows: Claim 1 (p. 6, lines 2-5; p. 8, lines 6-18); Claim 4 is similar to Claim 1 except for claiming a main body frame 1 (p.4, line 19; FIG. 1); Claim 5 is similar to Claim 2 except for reciting the main body frame; Claims 6 and 7 are similar to Claim 3.

All of the grammatical errors noted by the Examiner in the specification and abstract have been corrected as suggested by the Examiner.

Further the grammatical and antecedent errors noted by the Examiner in the rejection of claims 1-3 under 35 U.S.C. §112 have been corrected as suggested by the Examiner.

The claims as now amended are patentably distinct over **Daniels '935** and therefore not anticipated under 35 USC 102(b), as explained in the following specific showing:

One significant structural difference between the amended claims and **Daniels '935** is the location, inside the lower turret, of the passage for discharge of the pieces which have been cut from the work material.

By locating the work sheet outlet 12 inside the turret, the small article work sheet W can be easily discharged after it is cut from the material work sheet which is slid into the turret punch press in the direction of the work sheet outlet 12 (p. 7, lines 20-22; p.8, lines 1-5). It is discharged by simply opening the opening and closing plate 14 when it is positioned over the plate after being cut by the punch cutting blade (FIG. 4A-C).

In contrast, in Daniels '935 the blank discharge chute 46 is located outside of the lower turret 14 as shown in FIG. 1. As stated in claim 2 of Daniels '935 the product blank removing means includes an "ejector means for pushing product blanks radially outwardly of the turret." The ejector means as shown in FIG. 2 pushes product blanks that fall through the die body 34 by a slider with guide tracks 42 directly under the die. The structure of Daniels '935 is more complex because of the necessity of locating part of the ejector mechanism (the guide tracks 42) directly below the die body 34 in order to push the blanks outside of the turret.

In the present invention the work sheet outlet 12 is positioned in the lower turret such that when the small article work sheet W is cut it is automatically positioned over the work sheet outlet 12. This, of course, makes disposal easy by simply opening the opening and closing plate 14.

In contrast, in Daniels '935 after the blank B is cut, it is not positioned over the blank discharge chute 46. Instead it drops directly down through the die body 34 (see FIG. 2) where several are stacked before being pushed by slider 44 into the blank discharge chute 46. This arrangement is not as compact as the present invention because the blank discharge chute 46 occupies additional space outside the lower turret 14.

The positioning of the discharge passage inside the lower turret simplifies the press as well changes the flow pattern of material work sheet into the machine. As stated on p. 10, lines 4-6 of the specification, "the work sheet feeding or the punch processing can be prevented from being interrupted by the work sheet outlet. Moreover, the opening and closing plate can be used as a chute [shooter] and the small article work sheet can be discharged by being slid." Nowhere in the prior

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art is there a disclosure that would anticipate or render obvious the claimed invention. The applicants respectfully request that all claims be allowed.

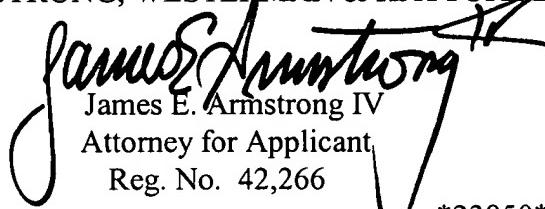
In view of the aforementioned amendments and accompanying remarks, claims 1-3, as amended, and new claims 4-7, are believed to be in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

Attached hereto is a marked-up version of the changes made to the specification and the claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,
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VERSION WITH MARKINGS TO SHOW CHANGES MADE 09/955,334

IN THE SPECIFICATION:

Amend the specification as follows:

Please replace the paragraph beginning at page 1, line 16, with the following rewritten paragraph:

For example, the cutting off operation of the connected part is carried out by a subhead of which is a punch processing head exclusive for the cutting off operation, employed at a position apart from the turret. The discharging of the cut off product work sheet is generally carried out by a suction typed unloader. Since the small article cannot be sucked, [the] a work [shooter] chute to be mentioned in the following is to be used. The work [shooter] chute is leading to the outside of the machine from the opening near the subhead in the upper surface of the table. The opening is closed during the processing.

Please replace the paragraph beginning at page 3, line 9, with the following rewritten paragraph:

In the present invention, a [shooter] chute connected to the work sheet outlet of the lower turret can be provided in the main body frame supporting the lower turret. If constructed likewise, the small article work sheet cut off from the material work sheet can be discharged easily to the outside of the machine by being slid over the [shooter] chute.

Please replace the paragraph beginning at page 3, line 14, with the following rewritten paragraph:

Moreover, in the present invention, an opening and closing plate freely opening and closing to cover the work sheet outlet can be provided in the lower turret so that the upper surface level in the closed state is to be approximately equal to the upper surface level of the lower turret. By providing the opening and closing plate to cover the work sheet outlet during the processing, the work sheet feeding or the punch processing can be carried out without being interrupted by the work sheet outlet. The opening and closing plate can be used just as a cover, or can be used as [a shooter] a chute, to discharge the small article work sheet being slid in self-control. Further, the upper surface level of the lower turret mentioned here is the upper surface of the table when employing a table in the lower turret.

Please replace the paragraph beginning at page 4, line 11, with the following rewritten paragraph:

[Figure 4 is a view] Figures 4A-4C are views useful for explaining the discharging operation of the small article work sheet of the punch press.

Please replace the paragraph beginning at page 4, line 22, and continuing onto page 5, with the following rewritten paragraph:

A plurality of punch storing holes 8 which hold the punch tool 6 freely elevating and descending, are employed by being arranged on the circumference of the upper turret 3. In the example shown in the drawing, the punch storing holes 8 are employed in two lines inside and outside. The punch tool 6 [is] includes a punch cutting blade 7 (refer to Figure 2) employed within the punch [holder] tool 6. The lower turret 4 [is] includes a die tool 9 corresponding to the punch tool 6 of the upper turret 3, held in a plurality via a die holder 10, and a plurality of die holders 10 are employed by being arranged on the circumference as shown in Figure 3. Referring to Figure 1, the punch driving mechanism 5 drives the punch tool 6 of the upper turret 3 by elevating and descending a ram 11. The ram 11 is connected to the drive source (not shown in the drawings) of the motor or the hydraulic cylinder or the like. In this example, two individual rams 11a corresponding to the punch tool 6 in two rows inside and outside, are employed. Out of these two rams 11a, only the one selected by a ram selector 21 is driven to be elevated and descended by the elevating and descending operation of the ram 11.

Please replace the paragraph beginning at page 6, line 2, with the following rewritten paragraph:

A work sheet outlet 12 for discharging the small article work sheet cut off from the material work sheet in the punch processing, is employed in the inner diameter side of the employed section of the designated die holder 10 within the lower turret 4. A [shooter] chute 13

which is connected to the work sheet outlet 12, is employed in the lower frame section 1b of the main body frame 1 supporting the lower turret 4. Moreover, a freely opening and closing [opening and closing] plate 14 which covers the work sheet outlet 12, is employed in the lower turret 4. The height of the opening and closing plate 14 is set so that the upper surface level in the closed state equals approximately to the upper surface level of the lower turret 4. Specifically, the upper surface level of the opening and closing plate 14 in the closed state is set to be approximately equal to a table 17 employed in the upper surface of the lower turret 4 or a table 15 employed in the upper surface of the die holder 10. The tables 15, 17 are employed at the same level as to the upper surface level of a table 16 employed in the front of the lower turret 4.

Please replace the paragraph beginning at page 8, line 19 and continuing to page 9, with the following rewritten paragraph:

When the small article work sheet W is cut off from the material work sheet, as shown in Figures 4B and 4C, the opening and closing drive source 19 drives to the descending side, the opening and closing plate 14 becomes into a released state, facing perpendicularly downward, and the work sheet outlet 12 opens. As a result, the small article work sheet W falls freely from the work sheet outlet 12 of the lower turret 4 to the [shooter] chute 13, slides [over] through the [shooter] chute 13, and is discharged to the outside of the machine.

Please replace the paragraph beginning at page 9, line 21 and continuing to page 10, with the following rewritten paragraph:

When a [shooter] chute connected to the work sheet outlet of the lower turret is employed in the main body frame supporting the lower turret, the small article work sheet cut off from the material work sheet can be discharged to the outside of the machine easily by self-control.

Please replace the paragraph beginning at page 10, line 3, with the following rewritten paragraph:

When an opening and closing plate for covering the work sheet outlet is employed freely opening and closing to the lower part in the lower turret, the work sheet feeding or the punch processing can be prevented from being interrupted by the work sheet outlet. Moreover, the opening and closing plate can be used as a [shooter] chute and the small article work sheet can be discharged by being slid.

IN THE CLAIMS:

Amend claims 1, 2 and 3 as follows:

1. (Amended) A turret punch press comprising:
 - an upper turret [for] supporting a plurality of punch tools;
 - a lower turret [for] supporting a plurality of die tools corresponding to the punch tools, [;and]
the lower turret having a work sheet outlet positioned inside the lower turret; and

a punch driving mechanism operatively connected to the punch tools [for] driving the punch tools of the upper turret;

wherein [a work sheet outlet for discharging] a small article work sheet is cut off from a material work sheet which has been fed into the turret punch press in the punch processing so that the small article work sheet is located above the work sheet outlet in the lower turret and then is discharged through the work sheet outlet [, is employed in said lower turret].

2. (Amended) The [A] turret punch press according to claim 1 wherein a chute [shooter] connected to the work sheet outlet inside [of] said lower turret supports [is employed in the main body frame for supporting] said lower turret.

3. (Amended) The [A] turret punch press according to claim 1 or claim 2 wherein an opening and closing plate, freely opening and closing, for covering said work sheet outlet, is employed in said lower turret so that an upper surface of the opening and closing plate, when said plate is closed, is approximately even in height with an upper surface of the lower turret [the upper surface level in the closed state is to become approximately equal to the upper surface level of said lower turret].